

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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5-15-98

In re Application of

TI-22187

Smith, et al.

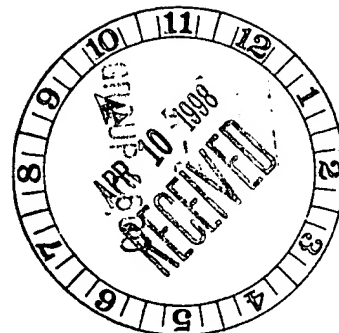
Examiner: Darbe

Serial No.: 08/586,777

Art Unit: 2305

Filed: 12/07/95

For: PORTABLE COMPUTER HAVING AN INTERFACE FOR
DIRECT CONNECTION TO A MOBILE TELEPHONE



APPELLANTS' BRIEF

Assistant Commissioner for Patents
Washington, D.C. 20231

MAILING CERTIFICATE UNDER 37 C.F.R. §1.8(A)

I hereby certify that the above correspondence is being deposited with the U.S. Postal Service as First Class Mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231 on March 23, 1998.

Ronald O. Neerings
Ronald O. Neerings, Reg. No. 34,227

Dear Sir:

In support of his appeal of the Final Rejection of claims in the above-referenced application, Appellant respectfully submits herein his brief.

I. REAL PARTY IN INTEREST

Texas Instruments Incorporated is the real party in interest.

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II. RELATED APPEALS AND INTERFERENCES

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Appellants' legal representative is not aware of any related appeals or interferences.

III. STATUS OF CLAIMS

Claims 1-29 are pending in the application. Final Rejection of Claims 1-29 was made by the Examiner in an Office Action dated September 11, 1997. Claims 1-29 are on appeal. Claims 1-29 are reproduced in the Appendix to Appellants' Brief filed herewith.

IV. STATUS OF AMENDMENTS

Appellant filed an amendment under 37 C.F.R. 1.115 on June 19, 1997 which was entered by the Examiner. No amendments were filed subsequent to the Final Rejection.

V. SUMMARY OF THE INVENTION

The invention comprises a portable computer having an interface for direct connection to a portable telephone. In one embodiment of the invention, a portable telephone (cellular in the present case) is constructed in such a fashion as to fit within a cavity in a portable computer (such as a cavity that otherwise accepts a battery pack like the front loading battery pack for the Texas Instruments TM-5000 portable computer - or other device when not utilized as a portable telephone port). The portable telephone is physically connected to the portable computer by a latching mechanism and communicates with the portable computer by means of a computer/portable telephone interface (in this embodiment of the invention, an in line connector that electrically connects the portable telephone to the portable computer). Physically and electrically connecting the portable telephone to the portable computer eliminates the need for a cable or tethered connection between a portable computer and a portable telephone, as illustrated in FIG. 7.

In one embodiment of the invention, the portable telephone serves as the portable computer's modem and function while installed in the computer. Thus, the portable phone facilitates the transmission and reception of data between the portable computer and another computer connected to the telephone system. In another embodiment of the invention, the portable

computer (and not the portable telephone), contains the modem that is utilized for telephonic data communications. In yet another embodiment of the invention, a modem may be omitted altogether when telephone 188 is to be used in a completely digital telephone network. An operator of the portable computer/portable telephone also has the option of using the portable telephone for voice transmission independently of the computer, or may enjoy hands free voice operation by using the portable computer's internal speaker and microphone. Still another embodiment of the invention facilitates portable telephone operation on the computers internal battery/power system while installed in the portable computer and on it's own battery (charged while in the portable computer) when used independently of the portable computer.

VI. ISSUES

1) Are Claims 1-7, 13, 15-17 and 19-29 patentable under 35 U.S.C. §102(b) over Hop (4,912,756)?

2) Are Claims 8-11 patentable under 35 U.S.C. §103(a) over Hop (4,912,756)?

3) Is Claim 18 patentable under 35 U.S.C. §103(a) over Hop (4,912,756) in view of Dent et al, (5,581,597)?

4) Are Claims 12 and 14 patentable under 35 U.S.C. §103(a) over Hop (4,912,756) in view of Morris (5,020,090)?

VII. GROUPING OF CLAIMS

Claims 1-29 stand or fall separately.

VIII. ARGUMENT

The Rejection

Claims 1-7, 13, 15-17 and 19-29 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Hop, U.S. Patent No. 4,912,756.

Regarding claims 1, 7, 13 and 29; Hop discloses a system using a personal computer to effectuate reliable data transmission over a cellular telephone system as illustrated in Figure 1. Element 19 is referred to as the mobile unit and is comprised of a portable PC (element 2), interface circuit (element 3, cellular connector (element 28) and CSE (Cellular subscriber equipment). Regarding claim 12; Hop shows a modem explicitly as element 24 in Figure 2.

Regarding claims 2, 3, 4, 5, 6; in the information processing and data communications arts, a computer inherently contains a data processor, memory or data and programs such as an operating system, input means (commonly a keyboard) and output means such as a display (LCD, monitor, etc.). Hop does not explicitly show these features (except for the display in figure 2), nevertheless the features are inherent in Hop's disclosure.

Regarding claims 15-17, 19-28; these claims refer to the leads or lines between the interface and the microprocessor. The claims refer to voice channel leads, command channel leads, and a ground lead. Claim 16, 17 and 20 also refer to the facilitation of a bidirectional half duplex mode. Claims 23, 25 and 27 also refer the facilitation of a unidirectional full duplex mode. Hop discloses the connection of the interface to the computer via the COM1 port in figure 2. COM1 is a discloses as a conventional RS232 to which a bidirectional serial bus is connected (col. 4, line 36-39). The RS232(-C) industry standard calls for a 25 pin connector including 2 data/voice lines and a variety of control (command) lines which facilitate either bidirectional half-duplex mode or unidirectional full-duplex mode.

Claims 8-11 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hop. Claims 8, 9, 10, 11 refer the positioning and securing of the portable telephone to a "cavity". Hop does not refer to a cavity or receptacle for the portable telephone in his disclosure, however Hop discloses, directly and indirectly, mobility and portability in his system. For example, he refers to "mobile unit" throughout his specification. The choice of how the portable telephone housing and computer/interface housing fit together is dependent upon a number of factors such as ease of use or access to telephone independently of the computer, intended dimension (e.g. to fit inside a standard sized briefcase, in an airplanes overhead bin, etc.) and the particular configuration of the components is a matter of which factor(s) are more important to the intended end-user.

Claim 18 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Hop in view of Dent et al., U.S. pat. No. 5,581,597. Claim 18 refers the interface as having a power lead. Hop does not disclose such a power lead however Dent discloses in col. 8, lines 52-57 the use of a cellular terminal (such as a cellular telephone) plugged into a personal computer. While the cellular terminal is "parked" (i.e. plugged in), it may be powered from a power supply through leads as shown in figure 3. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide power to the cellular telephone while in use to transmit or receive data for the computer to prevent depleting the cellular telephone's battery unnecessarily. Failure of the battery without an alternate power supply would cause interruption of the data transmission and reception via the cellular telephone.

Claims 12 and 14 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hop in view of Morris, U.S. Patent No. 5,020,090. Claim 12 refers to the modem as being internal to the computer; Hop discloses a modem (element 24) in combination with the Portable PC in fig. 2 but does not specifically indicate that the modem is internal to the computer. Morris shows a portable computer which connects via a track mechanism in fig. 1. The abstract refers to the "modem in the computer" and the Morris' claims 1 and 8 refer to a "computer having...a modem". In the portable computer art, size is a critical factor in order to render the computer "portable"; it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the modem in the computer to reduce the size of the system.

Claim 14 refers to transmitting voice and data signals while the telephone and computer are connected. As stated above, Hop discloses COM1 as a conventional RS232 to which a bidirectional serial bus is connected (col. 4, line 36-39). The RS232(-C) industry standard calls for a 25 pin connector including 2 data/voice lines and a variety of control (command) lines which facilitate either bidirectional half-duplex mode or unidirectional full-duplex mode. The purpose of Hop is to provide data communications between two computer systems via a cellular telephone system.

Appellants' Argument

1) Independent Claims 1 and 29 stand patentable under 35 U.S.C. §102(b) over Hop. (4,912,756).

In order that the rejection of any claim in this appeal be sustainable, it is fundamental that "each and every element as set forth in the claim be found, either expressly or inherently described, in a single prior art reference (Hop reference in the present case)." Verdegall Bros. v. Union Oil Co. of California, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). See also, Richardson v. Suzuki Motor Co., 9 USPQ2d 1913, 1920 (Fed. Cir. 1989), where the court states, "The identical invention must be shown in as complete detail as is contained in the ... claim".

Independent Claim 1 requires and positively recites a computer comprising: "a provision for user input", "a provision for output", "a microprocessor coupled to said user input and said output", and "an interface coupled to said microprocessor, said interface being **directly connectable** to a corresponding interface in a portable telephone".

Independent Claim 29 requires and positively recites a computer comprising: "a display device", "a keyboard", "a microprocessor coupled to said display device and keyboard", "memory coupled to said microprocessor for storing at least program instructions", "a logic unit coupled to

said microprocessor”, and “an interface coupled to said microprocessor, said interface being **directly connectable** to a corresponding interface in a portable telephone”.

In contrast, the Hop reference discloses in FIG. 1 an apparatus in which a portable computer (2) is coupled to a cellular connector (28) via a first cable (bidirectional serial bus 22) which itself is coupled to a cellular subscriber equipment (CSE) (4). Portable computer (2) is further coupled to an interface circuit (3) via a second cable (29) which is itself coupled to the mobile telephone handset (4).

Hop further discloses that CSE unit 4 can be any of a variety of commercially available units, such as a Motorola model 6800XL (col. 4, lines 5-7), which Hop discloses is a conventional mobile telephone handset (col. 4, lines 60). Hop also teaches that interface circuit 3 is connected to CSE 4 by a three-wire bus which includes TDATA (true data) conductor 25A, CDATA (complementary data) conductor 25 B, and RDATA (return data) conductor 25C of CSE unit 4. Interface circuit 3 also is connected to CSE 4 by RX, TX conductors 31 (col. 4, lines 41-46). Hop teaches that interface circuit 3 preferably is included in a small housing into which eight conductors, generally designated by numeral 45, within a coil cord from handset 27 (FIG. 2) are plugged (col. 5, lines 5-10). Numeral 43 represents a plug-in connector for the coil cord from handset 27. Numeral 44 designates connection of the individual conductor 45 to CSE unit 44 (col. 5, lines 10-13).

Hop further discloses that cellular connector 28 can be a Motorola model 51565A which is connected to CSE 4 via the three-wire bus 25A-C and RX (receive), TX (transmit) cable 31, and performs the function of converting cellular “two way radio” signals to standard telephone “tip and ring” signals. Cellular connector 28 is connected by an 8 wire bus 45 to handset 27, which Hop teaches is the same as CSE 4, which includes the same conductors shown in bus 45 in FIG. 3 (col. 4, lines 62-68).

As a result, Hop teaches an apparatus with four physically separate devices: CSE 4; cellular connector 28; interface circuit 3; and portable computer 2, which are coupled together in an

arrangement in which interface circuit is coupled to CSE 4 via a first cable/bus and is coupled to portable computer 2 via a second cable/bus and cellular connector 28 is coupled to CSE 4 via a third cable/bus and is coupled to portable computer 2 via a fourth cable/bus. Thus, interface circuit 3 is not a part of CSE 4, not a part of cellular connector 28, not a part of handset 27, and not an integrated part of any "portable telephone". Even assuming, arguendo, that it were part of a "portable telephone" formed of discrete parts cable/bus coupled together, the fact remains that interface circuit 3 is still coupled to portable computer 2 via bidirectional bus 22. As a result, Hop fails to teach or suggest a computer having an interface that is "DIRECTLY connectable to a corresponding interface in a portable telephone", as required by Appellants' Claims 1 and 29. The 35 U.S.C. §102(b) rejection of Claims 1 and 29 is overcome.

Claims 2-7, 12-14, 15-17 and 19-28 stand allowable as depending from allowable claims and including further limitations not taught or suggested by the Hop reference.

Claim 2 further defines the computer of Claim 1, wherein said user input is coupled to a keyboard. The Examiner admits that Hop fails to show this limitation (Office Action dated 09/11/97, page 3, lines 14-19). The Examiner argues that this feature is inherent in Hop's disclosure but fails to identify the location of the teaching for such inherency. As a result, the Hop reference fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 3 further defines the computer of Claim 1, wherein said output is coupled to a display device. The Examiner admits that Hop fails to show this limitation (Office Action dated 09/11/97, page 3, lines 14-19). The Examiner argues that this feature is inherent in Hop's disclosure but fails to identify the location of the teaching for such inherency. As a result, the Hop reference fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 4 further defines the computer of Claim 1, wherein said user input is coupled to a keyboard and said output is coupled to a display device. The Examiner admits that Hop fails to show this limitation (Office Action dated 09/11/97, page 3, lines 14-19). The Examiner argues that

this feature is inherent in Hop's disclosure but fails to identify the location of the teaching for such inherency. As a result, the Hop reference fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 5 further defines the computer of Claim 1, further comprising memory for storing at least program instructions. The Examiner admits that Hop fails to show this limitation (Office Action dated 09/11/97, page 3, lines 14-19). The Examiner argues that this feature is inherent in Hop's disclosure but fails to identify the location of the teaching for such inherency. As a result, the Hop reference fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 6 further defines the computer of Claim 1, further comprising core logic coupled to said microprocessor. The Examiner admits that Hop fails to show this limitation (Office Action dated 09/11/97, page 3, lines 14-19). The Examiner argues that this feature is inherent in Hop's disclosure but fails to identify the location of the teaching for such inherency. As a result, the Hop reference fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 7 further defines the computer of Claim 1, wherein said computer is a portable computer. While Hop does disclose a portable PC 2, it fails to teach or suggest a portable computer having the requirements of Claim 1.

Claim 12 further defines the computer of Claim 1, by further including a modem, within said computer, coupled to said microprocessor. While Hop discloses a modem 24 externally coupled to portable computer 2 (see Fig 2), it fails to teach or suggest a modem within a computer having the requirements of Claim 1.

Claim 13 further defines the computer of Claim 1, wherein said computer utilizes said portable telephone to transmit and receive voice and data signals while said computer and portable telephone are connected. The Hop reference discloses a hand set 27 which is coupled to a cellular

connector 28, which itself is coupled to both modem 29 and interface circuit 3, the interface circuit 3 being further coupled to the first COM port 20 (see Fig. 2). The Hop reference fails, however, to teach or suggest the further limitation of Claim 13 in combination with the requirements of Claim 1.

Claim 14 further defines the computer of Claim 12, wherein said computer utilizes said portable telephone to transmit and receive voice and data signals while said computer and portable telephone are connected. The Hop reference discloses a hand set 27 which is coupled to a cellular connector 28, which itself is coupled to both modem 29 and interface circuit 3, the interface circuit 3 being further coupled to the first COM port 20 (see Fig. 2). The Hop reference fails, however, to teach or suggest the further limitation of Claim 14 in combination with the requirements of Claims 12 and 1.

Claim 15 further defines the computer of Claim 1, wherein said interface coupled to said microprocessor comprises: at least one voice channel lead, one command channel lead and a ground/reference lead for connection to corresponding leads in a corresponding interface in said portable telephone. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach both "at least one voice channel lead" and "one command channel lead", as required by Claim 15. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 16 further defines the computer of Claim 15, wherein said at least one voice channel lead facilitates a bidirectional half duplex mode. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach "at least one voice channel lead that facilitates a bidirectional half duplex mode", as required by Claim 16. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 17 further defines the computer of Claim 15, wherein said at least one command channel lead facilitates a bidirectional half duplex mode. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach "at least one command channel lead that facilitates a bidirectional half duplex mode", as required by Claim 17. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 19 further defines the computer of Claim 15, wherein voice and data are transmitted on said at least one voice channel lead. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach both "at least one voice channel lead" and "one command channel lead", as required by Claim 15. Thus, is also fails to teach or suggest that "voice and data are transmitted on said at least one voice channel lead", as required by Claim 19. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claim 1.

Claim 20 further defines the computer of Claim 15, wherein said interface coupled to said microprocessor further includes at least one data channel lead. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach that interface circuit 3 comprises, via bidirectional serial bus 22, "at least one data channel lead", as required by Claim 20. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 15 and 1.

Claim 21 further defines the computer of Claim 20, wherein said at least one data channel lead facilitates a bidirectional half duplex mode. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach or suggest "at least one data channel lead that facilitates a bidirectional half duplex mode", as required by

Claim 21. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 20, 15 and 1.

Claim 22 further defines the computer of Claim 15, wherein said interface coupled to said microprocessor further includes a second voice channel lead. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach or suggest that interface 3 is coupled to the microprocessor in portable computer 2, via a second voice channel". As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 15 and 1.

Claim 23 further defines the computer of Claim 22, wherein each of said voice channel leads facilitates a unidirectional full duplex mode. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Since bidirectional serial bus 22 fails to teach or suggest that interface 3 is coupled to the microprocessor in portable computer 2, via a second voice channel", it also fails to teach or suggest that "each of the voice channel leads facilitates a unidirectional full duplex mode". As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 22, 15, and 1.

Claim 24 further defines the computer of Claim 15, wherein said interface coupled to said microprocessor further includes a second command channel lead. Reference to Hop's fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach or suggest "wherein said interface coupled to said microprocessor further includes a second command channel lead". As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 15 and 1.

Claim 25 further defines the computer of Claim 24, wherein each of said voice channel leads facilitates a unidirectional full duplex mode. Reference to Hop's fig. 3 clearly shows that

bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Being that bidirectional serial bus 22 fails to teach or suggest “wherein said interface coupled to said microprocessor further includes a second command channel lead”, it similarly fails to teach or suggest that “each of said voice channel leads facilitates a unidirectional full duplex mode”. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 24, 15, and 1.

Claim 26 further defines the computer of Claim 22, wherein said interface coupled to said microprocessor further includes a second command channel lead. Reference to Hop’s fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Bidirectional serial bus 22 fails to teach or suggest that “interface circuit 3 coupled to said microprocessor further includes a second command channel leads”. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 22, 15, and 1.

Claim 27 further defines the computer of Claim 26, wherein each of said voice channel leads facilitates a unidirectional full duplex mode. Reference to Hop’s fig. 3 clearly shows that bidirectional serial bus 22 (fig. 2) that couples COM1 to interface circuit 3 comprises a transmit line 22a, a ground line 22c and a receive line 22b. Being that bidirectional serial bus 22 fails to teach or suggest that “interface circuit 3 coupled to said microprocessor further includes a second command channel lead”, it further fails to teach or suggest, “where each of said voice channel leads facilitates a unidirectional full duplex mode”, as required by Claim 27. As a result, Hop fails to teach or suggest this further limitation in combination with the requirements of Claims 26, 22, 15, and 1.

Claim 28 further defines the computer of Claim 23, wherein voice and data are transmitted on said voice channel leads. The Hop reference fails to teach or suggest this further limitation in combination with the requirements of Claim 23.

2) Claims 8-11 are patentable under 35 U.S.C. §103(a) over Hop (4,912,756).

Claim 8 further defines the computer of Claim 1, wherein said interface is located within a cavity in said computer. The Examiner admits (Office Action dated 09/11/97, page 5, lines 4-5) that Hop does not disclose a cavity or receptacle for the portable telephone in his disclosure. The Examiner suggests, however, that since Hop discloses, directly and indirectly, mobility and portability in his system, "configuration of the components is a matter of which factor(s) are more important to the intended end-user". Appellants respectfully submit that "mobility" and "portability" are not an adequate teaching for Appellants' "interface located within a cavity in the computer". The Examiner seems to be suggesting that undirected skill of one in the pertinent art is an adequate substitute for statutory prior art. The argument that undirected skill of one in the pertinent art is an adequate substitute for statutory prior art was rejected by the CCPA in In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977). (see lines 6-16).

The Examiner has similarly failed to provide any evidence to show that an ordinary artisan would have been motivated to modify interface COM1 or COM2 in Hop to be in a cavity within portable computer 2 without the improper hindsight provided by Appellants' disclosure. As a result, the Examiner's allegation that ordinary artisan would have been motivated to modify Hop to put interface COM1 or COM 2 in a cavity within portable computer 2 is supposition by the Examiner not supported in fact.

Even if the cited art were to disclose components of the device in issue, case law holds that it is insufficient that the prior art discloses the components of the device in issue, either separately or used in other combination; there must be some teaching, suggestion, or incentive to make the combination made by the inventor. Northern Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 934, 15 USPQ2d 1321, 1323 (Fed. Cir. 1990). Moreover, "obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under section 103, teachings of references can be combined ONLY if there is some suggestion or incentive to do so." ACS Hosp. Systems, Inc. v. Montefiore Hosp., 732 F.2d 1572, 1577, 221 USPQ 929, 933 (Fed. Cir. 1984). Appellants have clearly shown that there is no teaching, suggestion, or incentive in the prior art to make the combination made by Appellants.

Although couched in terms of combining teachings found in the prior art, the same inquiry must be carried out in the context of a purported obvious "modification" of the prior art. The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. In re Laskowski, 871 F.2d 115, 10 USPQ2d 1397 (Fed. Cir. 1989); In re Gordon, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984). The Examiner has provided no prior art that suggests that putting the interface within "a cavity" within the computer is desirable. He has provided speculation only. Other desirable causes include automobile engines that deliver 200 miles per gallon with no pollution, cheap nuclear power, and harmless cigarettes - all noble causes, all desirable products. Unfortunately, the prior art does not teach or suggest the modifications necessary to attain the products.

Accordingly, the Examiner has improperly used hindsight and Appellants' disclosure to obviate their claimed invention. It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed.Cir.1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed.Cir.1985). Moreover, the CAFC has stated that "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." In re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988). Accordingly, the Examiner's above-described motivation for modifying Hop is in error and cannot be maintained.

Claims 9-11 stand allowable as depending from allowable claims and including further limitations not taught or suggested by the Hop reference.

Claim 9 further defines the computer of Claim 8, wherein said portable telephone fits at least partially within said cavity when directly connected to said interface. Hop fails to teach or suggest that handset 27 is attached directly to portable computer 2, let alone that handset 27 "fits at least partially within said cavity when directly connected to said interface". There is no motivation in the art that would lead one skilled in the art to modify portable computer 2 and handset 27 to fit together in the above suggested manner, without the improper hindsight provided by Appellants' disclosure.

Claim 10 further defines the computer of Claim 8, wherein said portable telephone fits completely within said cavity when directly connected to said interface. Hop fails to teach or suggest that handset 27 is attached directly to portable computer 2, let alone that handset 27 “fits completely within said cavity when directly connected to said interface”. There is no motivation in the art that would lead one skilled in the art to modify portable computer 2 and handset 27 to fit together in the above suggested manner, without the improper hindsight provided by Appellants’ disclosure.

Claim 11 further defines the computer of Claim 1, further including a mechanism on said computer that cooperates with a corresponding mechanism on said computer for removably securing said portable telephone to said computer. Hop fails to teach or suggest that handset 27 is attached directly to portable computer 2, let alone that handset 27 “fits at least partially, or fully within said cavity when directly connected to said interface”. As a result, there is no motivation in the art that would lead one skilled in the art to modify portable computer 2 and handset 27 to provide a mechanism on said computer that cooperates with a corresponding mechanism on said computer for removably securing said portable telephone to said computer, without the improper hindsight provided by Appellants’ disclosure.

3) Claim 18 is allowable under 35 U.S.C. 103(a) over Hop in view of Dent et al.

Claim 18 further defines the computer of Claim 15 (which depends upon Claim 1), wherein said interface coupled to said microprocessor further includes a power lead. Appellants have previously shown that Hop fails to teach or suggest a computer having an interface that is “DIRECTLY connectable to a corresponding interface in a portable telephone”, as required by Appellants’ Claims 1, and therefore implicitly fails to teach or suggest the additional teachings of Claim 15 in combination with Claim 1. The Examiner argues that while “Hop does not disclose such a power lead, Dent discloses in col., lines 52-57 the use of a cellular terminal plugged into a personal computer” (Office Action dated 09/11/97, page 5, line 19 – page 6, line 2), thus, goes the Examiner’s rationale, “it would have been obvious to one of ordinary skill in the art at the time the

invention was made to provide power to cellular telephone while in use to transmit or receive data for the computer to prevent depleting the cellular telephone's battery unnecessarily" (lines 9-13). Again, the Examiner seems to be suggesting that undirected skill of one in the pertinent art is an adequate substitute for statutory prior art. The argument that undirected skill of one in the pertinent art is an adequate substitute for statutory prior art was rejected by the CCPA in In re Antonie, 559 F.2d 618, 195 USPQ 6 (CCPA 1977).

4) Claims 12 and 14 are patentable under 35 U.S.C. §103(a) over Hop (4,912,756) in view of Morris (5,020,090).

Claim 12 further defines the computer of Claim 1, by further including a modem, within said computer, coupled to said microprocessor. In contrast, the Hop reference discloses in FIG. 1 an apparatus in which a portable computer (2) is coupled to a cellular connector (28) via a first cable (bidirectional serial bus 22) which itself is coupled to a cellular subscriber equipment (CSE) (4). Portable computer (2) is further coupled to an interface circuit (3) via a second cable (29) which is itself coupled to the mobile telephone handset (4).

Hop further discloses that CSE unit 4 can be any of a variety of commercially available units, such as a Motorola model 6800XL (col. 4, lines 5-7), which Hop discloses is a conventional mobile telephone handset (col. 4, lines 60). Hop also teaches that interface circuit 3 is connected to CSE 4 by a three-wire bus which includes TDATA (true data) conductor 25A, CDATA (complementary data) conductor 25 B, and RDATA (return data) conductor 25C of CSE unit 4. Interface circuit 3 also is connected to CSE 4 by RX, TX conductors 31 (col. 4, lines 41-46). Hop teaches that interface circuit 3 preferably is included in a small housing into which eight conductors, generally designated by numeral 45, within a coil cord from handset 27 (FIG. 2) are plugged (col. 5, lines 5-10). Numeral 43 represents a plug-in connector for the coil cord from handset 27. Numeral 44 designates connection of the individual conductor 45 to CSE unit 44 (col. 5, lines 10-13).

Hop further discloses that cellular connector 28 can be a Motorola model 51565A which is connected to CSE 4 via the three-wire bus 25A-C and RX (receive), TX (transmit) cable 31, and performs the function of converting cellular "two way radio" signals to standard telephone "tip and ring" signals. Cellular connector 28 is connected by an 8 wire bus 45 to handset 27, which Hop teaches is the same as CSE 4, which includes the same conductors shown in bus 45 in FIG. 3 (col. 4, lines 62-68).

As a result, Hop teaches an apparatus with four physically separate devices: CSE 4; cellular connector 28; interface circuit 3; and portable computer 2, which are coupled together in an arrangement in which interface circuit is coupled to CSE 4 via a first cable/bus and is coupled to portable computer 2 via a second cable/bus and cellular connector 28 is coupled to CSE 4 via a third cable/bus and is coupled to portable computer 2 via a fourth cable/bus. Thus, interface circuit 3 is not a part of CSE 4, not a part of cellular connector 28, not a part of handset 27, and not an integrated part of any "portable telephone". Even assuming, arguendo, that it were part of a "portable telephone" formed of discrete parts cable/bus coupled together, the fact remains that interface circuit 3 is still coupled to portable computer 2 via bidirectional bus 22. As a result, Hop fails to teach or suggest a computer having an interface that is "DIRECTLY connectable to a corresponding interface in a portable telephone", as required by Appellants' Claims 1 and 29. The 35 U.S.C. §102(b) rejection of Claims 1 and 29 is overcome.

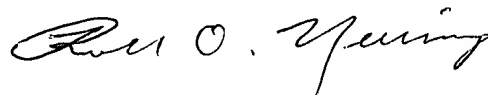
Hop thus discloses a modem 24 externally coupled to portable computer 2 (see Fig 2), it fails to teach or suggest a modem within a computer having the requirements of Claim 1. Even assuming Morris teaches a computer with an internal modem, it fails to teach or suggest the elements of Claim 1 that are omitted from the Hop device.

Claim 14 further defines the computer of Claim 12, wherein said computer utilizes said portable telephone to transmit and receive voice and data signals while said computer and portable telephone are connected. The Hop reference discloses a hand set 27 which is coupled to a cellular connector 28, which itself is coupled to both modem 29 and interface circuit 3, the interface circuit

3 being further coupled to the first COM port 20 (see Fig. 2). The Hop reference fails, however, to teach or suggest the further limitation of Claim 14 in combination with the requirements of Claims 12 and 1. Even assuming Morris teaches a computer with an internal modem, it fails to teach or suggest the elements of Claim 1 that are omitted from the Hop device.

For the above reasons, favorable consideration of the appeal of the Final Rejection in the above-referenced application, and its reversal, are respectfully requested.

Respectfully submitted,



Ronald O. Neerings
Reg. No. 34,227
Attorney for Appellants

TEXAS INSTRUMENTS INCORPORATED
P.O. BOX 655474, M/S 3999
Dallas, Texas 75265
Phone: 972/917-5299
Fax: 972/917-4417 or 917-4418